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## **Comparisons of the motivational sources of high school business students**

Jason D. Mayfield

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I am submitting herewith a thesis written by Jason D. Mayfield entitled "Comparisons of the motivational sources of high school business students." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Human Resource Development.

Vickie Johnson Stout, Major Professor

We have read this thesis and recommend its acceptance:

Debbie Mackey, Randal Pierce

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Carolyn R. Hodges

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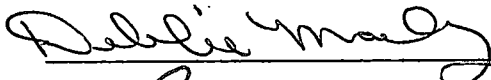
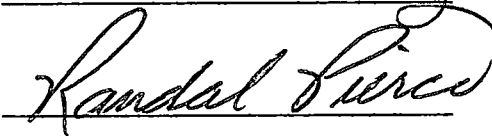
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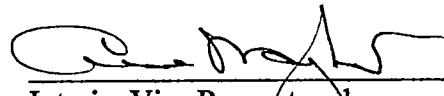
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Vickie Johnson Stout, Major Professor

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Accepted for the Council:

  
\_\_\_\_\_  
Interim Vice Provost and  
Dean of The Graduate School

# Comparisons of the Motivational Sources of High School Business Students

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A Thesis Presented for the  
Master of Science Degree,  
The University of Tennessee, Knoxville

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Jason Mayfield  
August 2001

## ACKNOWLEDGEMENTS

During the course of this study, I have learned more about myself and being an educator than about the principles on which this study is founded. I would like to thank my committee, Dr. Debbie Mackey, Dr. Randal Pierce, and Dr. Vickie Stout. Their guidance and commitment has been invaluable. The advancement through the College of Human Ecology as both an undergraduate and graduate student has required many long hours and has been emotionally and physically challenging at times. To help with the demands, I have been fortunate to have an excellent advisor with whom to work. I would like to express my appreciation to Dr. Vickie Stout. Dr. Stout has consistently been a major source of encouragement throughout the past four years. Dr. Stout, thank you.

**ABSTRACT**

The purpose of this study was to determine and compare the motivational sources of students based on *gender*, *course nature*, and *grade level*. The respondents include a sample of the students in the Business Department at Bearden High School (Knoxville, TN) during the last nine weeks of the spring semester of 2001. Keyboarding classes during the first nine weeks were not included in the sample. Each respondent reported on his or her motivational sources using the survey instrument developed by the researcher. Major findings of the study were (a) that the respondents had an optimal combination of extrinsic and intrinsic motivational sources, which the teacher can foster and build upon within instruction and (b) difference in motivational sources was most pronounced between freshmen and seniors. Teachers who have a combination of these grade levels in the classroom should recognize and accommodate them within business courses.

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# CHAPTER I

## Introduction

What motivates students to learn? In today's culture, students are under pressure to be involved in other activities, such as athletics and a wide variety of entertainment due to the advancement of technology. These various activities can easily distract from a student's motivation to learn. Many students label education as something that they must "get through," rather than seeing it as an opportunity to learn. In public high school education, the problem is not the lack of opportunities for the students, but the lack of motivated students to take advantage of the opportunities. There's no shortage of students who have the intelligence and ability for success, even spectacular success, but few students are willing to be engaged in the classroom to maximize their education. Achieving good grades is not at the heart of this discussion. Many students achieve good grades. The problem is the lack of motivation to further their education and achieve beyond expectations.

According to Jensen (1998) teachers have all looked for solutions to motivate learners. Better grades, pleasing others, graduation, and future employment are common sources of motivation. Amy Moskal (personal communication, December 4, 2000), Business Teacher at Bearden High School, states, "one of the major difficulties of teaching is convincing the students of the importance of learning." Teachers offer choices, privileges, and other benefits; however, these kinds of rewards seem to work with some, but not all, students. A study of 849 Los Angeles County 8<sup>th</sup> graders found that they scored 13 percent higher when offered \$1 for every correct answer on a national

math exam. This study suggested that some students may actually know the material but be unmotivated to demonstrate it (Colvin 1996). Along with most secondary education teachers, administrators agree on the impact of having a motivated student in the classroom. "If a student is motivated to learn in a classroom, the possibility of that student enjoying the learning process is much higher" (C. Sheets, personal communication, November 30, 2000). Mr. Sheets is an Assistant Principal at Fayette County High School in Georgia. How can teachers, parents, administrators, guidance counselors and other interested parties work to change this problem? Part of the answer can be found by trying to understand what motivates students.

This study determined and compared the motivational sources of students in the Business Department at Bearden High School. The sources were compared based on *gender*, *course nature*, and *grade level*. In identifying and comparing these sources, the researcher sought to aid teachers in knowing the motivation of certain students in the classroom.

This chapter is composed of a Statement of the Problem, Statement of the Purpose, Definition of Terms, Research Questions, and Hypotheses, Rationale, Assumptions, Delimitation, and Limitation.

### **Statement of the Problem**

Limited research is available concerning the differences in the motivational sources of Bearden High School students. Further investigation is needed to determine the motivational sources for these students.

### Statement of the Purpose

The purpose of this study was to determine and compare the motivational sources of students in the Business Department at Bearden High School. Comparisons were made based on *gender*, *course nature*, and *grade level*.

### Definition of Terms

The following terms were necessary in researching the sources of student motivation:

**Achievement motivation** - "A process of planning and striving for excellence, progress, doing things better, faster, more efficiently, doing something unique, or, in general, competing" (Alschuler, 1973, p. 23).

**Autonomy** - "self-determination in deciding what to do and how to do it" (Brophy, 1998, p. 7)

**Competence needs** - "developing and exercising skills for manipulating and controlling the environment" (Brophy, 1998, p. 7).

**Effectance motivation** - A term of motivation dependent on arousal or interest in a particular topic

**Extrinsic motivation (incentive motivation)** - "The process of satisfying a need that is related to the learning activity, but is not satisfied by the learning" (Breen, Lindsay, 1999, p. 80).

**Intrinsic motivation (drive motivation)** - "A force within individuals that impels them to engage in a particular behavior" (Brunsma, Khmelkov, McConnell, & Orr, 1996, p. 10).

**Motivational source** - “A variable affecting a person’s speed and course of action in a particular situation” (Gorham & Millette, 1997, p. 245).

**Relatedness needs** - “affiliation with others through social relationships” (Brophy, 1998, p. 7).

**Self-Determination Theory** – “When people are motivated, they intend to accomplish something and undertake goal-oriented action to do so” (Brophy, 1998, p. 7).

**Student motivation** - According to Gorham and Millette (1997), “motivation has been described as the energy or stimulation that initiates a process in which individuals make choices that include a certain purpose of direction followed by involvement” (p. 245).

### **Research Questions**

Using students’ self-reporting as a foundation, this study answered the following questions:

1. **Who are the students** in the Business Department at Bearden High School during the Spring Semester of 2001?
2. **What are the motivational sources** of students in the Business Department at Bearden High School during the Spring Semester of 2001?
3. **What are the differences** in the motivational sources of students in the Business Department at Bearden High School **based on gender?**
4. **What are the differences** in the motivational sources of students in the Business Department at Bearden High School **based on course nature?**

5. **What are the differences** in the motivational sources of students in the Business Department at Bearden High School **based on grade level?**

### **Hypotheses**

The following null hypotheses were formulated for this study:

1. **There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on gender.**

2. **There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on course nature.**

3. **There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on grade level.**

### **Rationale for the Study**

One of the most difficult tasks faced by classroom teachers today is motivating students to learn. Keeping the attention of teenagers is a challenge faced daily by teachers everywhere. Not only is it difficult to inspire students to learn, it is all but impossible, in some situations, to have them to even participate in classroom activities. Interesting lectures, group work assignments, quizzes, and tests still fail to motivate many in the classroom. Even the most enthusiastic and successful classroom teachers admit that it is impossible to reach all their students. For some teachers the best they can hope for is one day per week when most of their students are in class and taking part in the learning process.

“We believe that motivation is an important quality that pervades all aspects of teaching and learning” (Pintrich & Schunk, 1996, p. v). According to these two



researchers, motivated students display interest in activities, expand effort to succeed, persist at tasks, work diligently, feel self-confident, and perform well. When motivation declines, other educational outcomes suffer. Teachers often list motivating students as one of their chief concerns and seek new ways to accomplish it. Each year, many school workshops and in-service programs are devoted to motivational topics.

According to McClelland and Winter (1969), psychological education courses designed to strengthen adults' achievement motivation have been successful in stimulating more energetic, innovative, and entrepreneurial behavior among adults. The success of these courses led to two major questions that educators began to research concerning achievement motivation: Can adolescents' achievement motivation be increased? What types of educational inputs maximize the gains in motivation? Although these are excellent questions and each needs to be answered, the researcher must first find out what motivates students before attempts can be made to increase students' motivation or change teaching styles.

According to Pintrich and Schunk (1996), students motivated to learn about a topic being discussed by a teacher are likely to engage in activities they believe will help them learn. In contrast, students unmotivated to learn are not apt to be as systematic in their learning efforts. Wlodowski (1978) cautioned that students who are not willing to involve themselves in class activities or assignments are not unmotivated so much as they are following some energy or stimulus that directs their involvement elsewhere. It is important to realize that motivation has a relation to learning and performance. Just as motivation influences these outcomes, what a student does and learns influences

subsequent motivation. This motivates students to set new challenging goals, which helps to develop motivation in students to learn for the sake of knowledge. These researchers believe that motivation can be changed through various sources.

Brunsma, et al (1996) stated that motivation is not directly related to learning, but it is positively related to performance. For example, a student's increased motivation will not guarantee increased learning simply because he is motivated to do so. This statement means that increased motivation leads to increased performance in many cases.

According to these researchers, "It is important for educators to take measures to increase student motivation" (Brunsma, et al, 1996, p.10). One of those measures could be to find the sources behind a student's motivation.

There are three main categories of motivational sources that will be discussed in this research: (a) teacher-influenced, (b) intrinsic, and (c) extrinsic. Although parts of these categories overlap, it is important to distinguish between the three according to research. These categories were formed in order to make comparisons among the respondents.

Educational psychologists believe most students are capable of learning, and that their motivation to do so is related to conditioning, previous experiences, modeling, expectations, and instruction or socialization by others, including parents and teachers (Brophy, 1987). Thus, teacher behavior has been identified as at least one factor influencing motivation.

According to Brophy (1998), the shift in emphasis from motivation as response to felt pressures, to motivation as self-determination of goals and actions is most obvious in

theories of intrinsic motivation. These theories describe people as pursuing their own agendas or doing tasks because of desire rather than need.

Individuals who are extrinsically motivated perform a task because there is some external incentive, such as money, a prize, increased social status, or recognition from others, to do so. This category is important to show that external motivators can be present to achieve motivation in the classroom.

This study sought to determine students' perceptions of their motivational sources, based on survey data from respondents enrolled in the Business Department at Bearden High School during the spring semester of 2001. Comparisons were made based on *gender*, *course nature*, and *grade level*. Are males and females motivated by different sources? As students grow and mature do their motivations stay the same? Are students motivated by different sources depending on whether or not the class is a required or elective *course*? These questions are answered throughout this research.

### **Assumptions**

The following assumptions were formulated in the present research of identifying motivational sources:

1. Survey respondents answered the questions as accurately and honestly as possible.
2. Survey respondents were the best sources to identify their own perceptions concerning motivation.

**Delimitation**

The following delimitation was formulated in the present research of identifying motivational sources:

- This study measured the perceptions of those students enrolled for the spring 2001 semester in the ten core courses in the Business Department at Bearden High School.

**Limitation**

The following limitation was formulated in the present research of identifying motivational sources:

- This study was limited to students in the Business Department at Bearden High School.

## CHAPTER II

### Review of Literature

The following review of literature discusses prior research and writings concerning motivation and sources of motivation for high school students. The review is presented to cover four major areas of motivation discussed in this research. It is important to understand that these four categories will overlap in their ideas and in the research. These categories are unique, but need to be combined in order to make comparisons for this research. This chapter includes an examination of research concerning Adolescent Motivation, Teacher-Influenced Motivation, Intrinsic Motivation, Extrinsic Motivation, and Summary. Each section shows how the topic has contributed to the present research, and how the present research adds to the existing body of knowledge.

#### Adolescent Motivation

Dealing with motivation is a difficult subject to interpret. As Brophy (1987) pointed out, motivation has been conceptualized either as a general, enduring predisposition toward learning or as an attitude toward a specific class. Almost all able students are motivated to achieve in one respect or another. That is, all are working toward a status or role that appears to offer satisfaction to their needs. What are the factors that predispose some students to perceive high educational achievement as desirable stepping-stones to achieving status, while others view this achievement less important? Educational psychologists, such as Brophy, believe most students are capable

of learning, and that their motivation to do so is related to conditioning, previous experiences, modeling, expectations, and instruction or socialization by others, including parents and teachers.

In many cases, educators try to change the motivation of the student toward classroom achievement to facilitate learning. How can we use the present student motivational sources to direct them to learning, rather than change the motivational sources entirely? Educators must first be able to determine the motivational sources of each student and work with that student in aiming toward the desired goal of learning.

Edward Hootstein (1998) discussed a model of student motivation is named from four key conditions that must be addressed in motivation: (a) relevant subject matter, (b) interesting instruction, (c) satisfied learner, and (d) expectations of success (RISE model). According to Hootstein, these four key conditions will work toward increasing students' enthusiasm for learning. Bouris, Creel, and Stortz (1998) examined the problem of lack of motivation in secondary mathematics students. By tailoring cooperative learning lessons to real life situations, a direct correlation between motivation and the active involvement of the learner can be detected. These two sources influenced the present study, because they gave a sense of direction concerning some of the sources of motivation. However, these studies lacked determining the motivational sources of students in the classroom. The present study will add to this literature by investigating and determining the motivational sources of students.

According to Hebron (1966) by the onset of adolescence the individual is more open to the stimulation of opportunity and differential reward. The adolescent is

influenced in many ways by the surrounding environment of people. One of the most facilitating factors in this process is exposure to adequate adult models who may demonstrate techniques concerning motivation. In this way, motivational patterns and techniques in terms of age, sex, and occupation will be acquired. This research, although 35 years old, shows the influence of adult models on an adolescent's development of motivation. Although in theory this might be true, do adolescents in 2001 still see adults as a primary motivating source to achieve in the classroom?

Breen and Lindsay (1999) reported on the investigation into the relationship between student perceptions of lecturer research and motivation to study at a university. Breen and Lindsay pointed out, "motivation is a hypothetical construct and is therefore inferred from behaviour" (p. 79). Why must we, as researchers, infer motivation? The present research seeks to determine the motivational sources directly from the subjects. These authors also stated that the relationships between motivation and academic performance are complex. This research demands the answer to several questions. Is academic performance the true test to seek out which students are motivated to learn and which are not? How can we seek to determine what motivates students to learn in the classroom? This present study seeks to determine and compare the sources of motivation based on the three factors of *gender*, *course nature*, and *grade level*.

### **Teacher-Influenced Motivation**

Motivational sources are the drivers that affect a person's speed and course of action in a particular situation. For purposes of this study, a motivational source would be something that affects the student's willingness to learn in the classroom. Past

research discovered many motivational sources related to teacher-influenced topics, such as teaching style, activities in the classroom, and teacher expectations.

Atkinson (1999) compared the level of student motivation in two different classroom settings. In schools where teachers used an interventionist approach, the teacher made many decisions involving the classroom. This approach was more teacher-centered and looked at adventurous ideas as being beyond the student's technological capability. Teachers that used the collaborative approach gave more time to individual teacher-student consultation. Students assumed more ownership of the classroom in all phases. Atkinson's study showed that students under the collaborative approach showed higher motivation levels than students under the interventionist approach. Although this study considered motivational levels, teaching style was identified as a source of motivation in the classroom.

There are some aspects of Atkinson's study that can be improved. The sample of 50 students contained 36 males (72 percent) and 14 females (28 percent). The probability of the sample being 50 percent male and female is unlikely; however, would the results be different if the sample was 55 to 60 percent male? The present research seeks to determine the differences in the sources of motivation for males and females.

This report also focused on two teaching methods that can be influential in reporting on sources of motivation. Students may be motivated by one style of teaching method over others. The present study seeks to determine if a teacher has any impact on the motivation in the classroom. Do students at Bearden High School see their teachers as sources of motivation to achieve in the classroom?



One aspect of teacher-influenced topics was teacher recognition. Intrinsic interest can be enhanced by the use of verbal praise and positive feedback (Cameron & Pierce, 1994). Brophy (1981) concluded that, on the whole, teachers do not rely on praise for specific motivation and consequently do not use it. In addition, praise is not evenly distributed, with outgoing, confident students receiving most of the praise. How many students at Bearden High School see teacher's recognition and praise as a motivator in the classroom? How are different students with respect to *gender* and *grade level* motivated by teacher recognition and praise in the classroom?

Gorham and Christophel's (1992) analysis of students' perceptions of factors influencing their motivation in classes yielded findings relevant to teacher-influenced topics. Students were asked to respond to the question "What things motivate you to try hard to do your best in a class?" Their findings indicated that teacher's behavior plays a part in students' motivation. Of the 708 motivators that were listed by the 308 students, 81% percent were teacher-influenced topics. Sixty-one percent of those dealt with course design and 20% simply focused on teacher behavior towards the students.

In addition to those teaching efforts, how teachers deliver instruction and monitor student performance has an important impact on student motivation. Much research has investigated how teaching practices affect student achievement. In a study by Brophy and Good (1986), some teachers were trained to implement various instructional practices in their classrooms, while other continued to teach in their regular manner. The data was consistent in showing that teachers trained to implement effective teaching practices raise student motivation and achievement more so than untrained teachers. According to the

research, teachers presenting material in small steps and allowing student practice ensures that students' information processing capabilities are not overloaded and that the students can effectively process the information before adding new information. This practice usually breeds success, which leads to motivation to learn more.

Jackson and Johnson (1995) discussed five methods for motivating students in the high school classroom. Jackson and Johnson stated, "there are many forces that compete for students' attention; and it behooves every educator to find some method to strengthen his or her arsenal of motivational tools" (p.31). Permitting discovery, creating relevance, varying activities, building a reward system, and having a purpose for every lesson are all different motivational sources that can influence students' interest. Visual aids, hands-on exercises, discussion groups, unique projects, and useful bulletin boards are also discussed in Jackson and Johnson's article. The present research uses these possible sources in creating the survey instrument for the subjects to complete. This research can build on the research by Jackson and Johnson by identifying more possible motivational sources that motivate students.

Teacher acknowledgement is a proven source of motivation for students. However, according to research, students' reactions to praise tend to change as they increase in age. Miller and Hom (1997) compared the reactions of students in grades four, six, and eight receiving varying amounts of praise, blame, and rewards. A notable finding was that the eighth graders valued ability over rewards and praise. What are the differences among grades nine, ten, eleven, and twelve with regard to praise from

teachers? What about male versus female? This study determined and compared the differences among these groups.

Griffin (1993) discussed four ways to increase the likelihood that students will become more motivated. He considered these four principles to be particularly powerful influences on a student's motivation level: (a) Teacher attention (b) Teacher faith in students (c) Teacher encouragement (d) Teacher professionalism. Griffin also stated that his awareness of many other factors will lead to increased motivation, such as, knowledge of the subject, ability to relate to students, and relevance of the subject, but he wanted to especially focus on these four principles in his research. Griffin's study did not research specifics of each source. Most of the statements were generalizations. The present research determined and compared each student's responses concerning individual motivational sources.

### **Intrinsic Motivation**

Early research on intrinsic motivation explained it in terms of motivation dependent on arousal or interest in a particular topic. White (1959) commonly referred to intrinsic motivation as effectance motivation. The goal of effectance motivation is a feeling of personal mastery. This goal is evident early in life as babies continually grab objects that catch their attention. As they get older, they continue to manipulate these objects in different ways, all in an attempt to control their environment. This may also contribute to learning. A child who opens a kitchen cupboard learns that there are cookies inside, and this knowledge eventually may be used to satisfy hunger. White suggested that once students enter school, they may direct effectance motivation toward

mastery of certain school subjects. School achievement and other outcomes are hypothesized to derive from effectance motivation. Are the students at Bearden High School motivated by a personal passion for the subject as White would suggest?

Hunt (1963) argued that intrinsic motivation stems from the discrepancy between prior experiences and new information. When people receive knowledge, they compare it to previous knowledge. When a discrepancy exists, intrinsically motivated people will seek to reduce it. In other words, they are learning for the sake of learning and not to please some outside source. Does the opportunity to learn or a desire to succeed provide motivation for Bearden High School students?

Intrinsic motivation is the ideal motivation for a student in a classroom. Students that are intrinsically motivated to learn are usually in class, participating in the class, and completing assignments. Individuals who are intrinsically motivated perform a task out of curiosity, because it is exciting or enjoyable to them, or because it presents a personal challenge. As Brophy (1998) explained, intrinsic motivation is seen as self-determination of goals and self-regulation of actions. Theories of intrinsic motivation portray people as pursuing goals on their own agendas.

Brophy stated that intrinsic motivation is also known as Self-determination theory. This theory includes behavior such as curiosity, exploration, spontaneity, and interest in one's surroundings. Intrinsically motivated students engage in activities because they want to. They require no separate motivation; the reward for them is the interest and enjoyment that they experience as they participate. Self-determination theory also specifies students are likely to experience intrinsic motivation in classrooms that

support satisfaction of needs such as competence, autonomy, and relatedness. "Where such needs are met in the classroom, students will feel controlled rather than self-determined and their motivation will be primarily extrinsic rather than intrinsic" (Brophy, 1998, 7). Brophy defined the background needed to attempt to understand intrinsic motivators. Will this theory on self-determination hold true? Does competence, autonomy, and relatedness need to exist for students at Bearden High School to feel intrinsically motivated?

Research showed that choice affects intrinsic motivation. In a study conducted by several researchers (Zuckerman, Porac, Lathin, Smith, & Deci, 1978), college students either chose puzzles to solve or were assigned puzzles that had been selected by the researchers. Students who chose puzzles displayed greater intrinsic motivation than did the students without a choice. Swann and Pittman (1977) found that leading children to believe they had choice over play activities increased their intrinsic motivation. Glass and Singer (1972) reported experiments showing that when individuals feel they have control over their environment, they perform at a higher level. Will respondents in the present study that are taking an *elective course* have different motivations than students taking a *required course*?

Intrinsic motivation is important in the educational context. Having students who are intrinsically motivated to learn is greatly beneficial to teachers and other students. This study determined and compared the perceptions of the selected sample using a self-reporting survey instrument. Several statements on the survey addressed intrinsic issues.

This enabled the researcher to make comparisons and conclusions on the motivational sources for these students.

### **Extrinsic Motivation**

Extrinsic motivation occurs when students engage in activities to attain rewards, such as praise, grades, special privileges, and certifications or material rewards.

Although a teacher's desire is for students to be intrinsically motivated in the classroom, Brophy (1983) pointed out that many tasks required in school are not intrinsically motivating to students. To counteract this, many teachers rely heavily on extrinsic incentives including praise, tokens, smiley faces, and special recognition such as "student of the month." Do students see extrinsic incentives as a motivation in the classroom?

A primary concern for educators balancing the use of extrinsic incentives as needed to promote student task engagement while establishing a climate that also encourages intrinsic motivation. Carron (1984) maintained that individuals, who are extrinsically motivated, perform a task because there is some personal incentive, such as a prize, increased social status, or recognition for others, to do so. Stipek (1996) concluded that the elimination of extrinsic incentives is neither desirable nor realistic in today's classrooms. Research by Logan (1976) supports Stipek's statement. Logan maintained that in order to maximize motivation, it is useful to combine intrinsic motivators with extrinsic motivators. This combination produces an optimal situation. In the case of an individual who is not intrinsically motivated, extrinsic motivators must be present in order to incite the individual to participate in a given task.

The effect of extrinsic rewards on intrinsic motivation has been the subject of many research studies. Lepper, Greene, and Nisbitt (1973) completed a study that (a) identified an intrinsically motivating activity, (b) established different reward conditions for the activity, and (c) assessed the extent of the activity following the reward. Drawing with felt pins was identified as an intrinsic activity for children in a preschool classroom. The students were placed in one of three conditions: (a) the children were told they would be rewarded with a "Good Player" certificate for playing with felt pens, (b) children were given an unexpected reward after they completed the activity, and (c) children neither expected nor received a reward for participation.

Two weeks later, the children were observed during free play to determine the amount of drawing with the felt pins that was taking place in the classroom. The group with the expected reward condition spent less time than both of the other groups drawing with the felt pins. This study led these researchers to believe that extrinsic rewards given for an already intrinsically motivating activity had an undermining effect on motivation in ages ranging from preschool to college students. The present research determined the students' perceptions of their motivational sources and compared them based on *gender*, *course nature*, and *grade level*.

### **Summary**

Motivation is a broad topic with abundant research on various topics within motivation. Motivational sources are rarely discussed in this research. The previous categories have discussed aspects of motivational sources. Each of these categories has equal importance on the motivation of students. Adolescent motivation is difficult to

define, because the students are at different levels and motivated by different sources. A student's motivational sources are dependent on many individual circumstances in a particular student's life. Teacher-influenced motivational sources will overlap with the other three categories. The teacher affects adolescent motivation, because, as an adult of influence, the teacher models motivation for student on a daily basis. The teacher is an external source of motivation for a student. Also, according to the research, some teaching methods can lead to increased intrinsic motivation. It is important to research students' perceptions of how teacher-influenced sources motivate them to achieve in the classroom.

Intrinsic motivation focuses on self-regulation of goals and self-determination to achieve in the classroom. Extrinsic motivation is concerned with external factors that affect motivation. Rewards, achievements, and grades are some of these factors. The research shows that intrinsic and extrinsic motivators will overlap in some cases. Earning a passing grade could be intrinsic or extrinsic depending on individual circumstances involving the student. It is important to research students' perceptions of how intrinsic and extrinsic sources motivate them to achieve in the classroom.

This research leads to some meaningful conclusions, as well as suggestions for future research and implications for the educator. These findings are explained in detail in chapter five.



## CHAPTER III

### Methodology

A survey of students enrolled in the Business Department at Bearden High School during the spring semester of 2001 was used to identify the students' perceptions of the motivational sources in the classroom. The sections in the Methodology consist of Design, Subjects, Instrumentation, Data Collection, and Data Analysis. Figure 1 shows the Methodological Conceptual Framework on which this research study is based.

#### Design

The quantitative descriptive research method was chosen for this study to determine and compare the differences in sources of motivation on the basis of *gender*, *course nature*, and *grade level*. This method was chosen to aid the investigation of the small number of variables over a short period of time, to identify the current status of student perceptions, and to collect in-breadth information concerning the demographic variables. This approach was also chosen to facilitate the collection of numerical data. The data concerning sources of motivation were compared according to the chosen demographic variables to determine whether differences exist.

#### Subjects

The respondents of this study included the sample of students in the Business Department at Bearden High School. The instrument was made available to students during the week of May 14 – 18, 2001. This time was most convenient to the researcher,

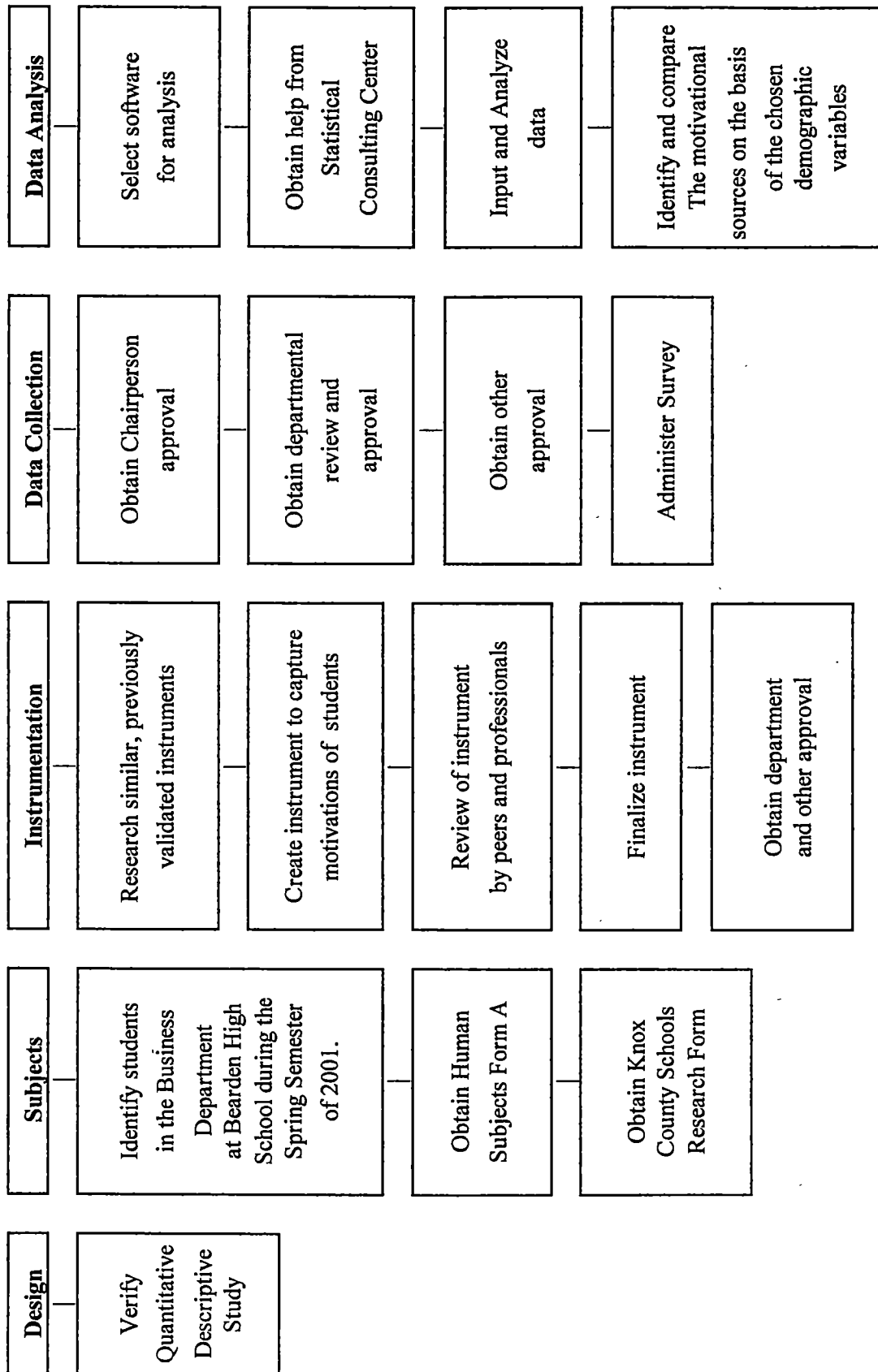


Figure 1. Methodology Conceptual Framework

although the Keyboarding students in the first nine-week classes were not available for sampling. This sample included 227 respondents that completed the instrument. Only 223 respondents supplied usable data. The subjects in the Business Education Department at Bearden High School provided excellent representation of various types of students that will add to the conclusions of the research.

### **Instrumentation**

A survey of the students' perceptions was used to determine and compare the motivational sources on the basis of *gender*, *course nature*, and *grade level*. The researcher conducted a literature review to locate an instrument that would be suitable for the purpose of this study. An instrument that contained the desired information was not found. Consequently, the researcher created a questionnaire that contains items specifically related to the objective, which was to investigate and determine the motivational sources of students. Appendix A contains an example of the survey used for this study.

The instrument was developed in three steps. First, a draft was written in Microsoft Word for initial peer review in a research methods course at the University of Tennessee. Second, the instrument was corrected to improve readability and validity, based on recommendations of the reviewers. Third, the instrument reviewed by the researcher's graduate committee for readability and content validity, and the final version was used for data collection.

The researcher obtained approval from committee members, the University of Tennessee Institutional Review Board, and Knox County Schools. A copy of University

Form A approval appears in Appendix B. The collection of data was accomplished through the administration of the approved survey instrument.

The instrument addressed students' demographics and motivational sources. The first section, composed of four questions relating to (a) *gender*, (b) *course nature*, (c) class period, and (d) *grade level*, is used to obtain specific demographic information about the respondents in order to make comparisons. Survey question one asked respondents to indicate male or female. Survey question two asked respondents to indicate their current course. Keyboarding is the only course with required enrollment to graduate at Bearden High School. All other courses, Web Design/E-Commerce, Internet Navigation/Computer Productivity, Principles of Business, Desktop Publishing, Finance/Management, Accounting, Keyboarding Applications, Marketing, and Information Management Systems, are considered electives. Survey questions three and four asked respondents to indicate their current period and their *grade level*, respectively.

In the second section of the instrument, respondents were asked to reply to 20 statements concerning their motivational sources. Each motivational source was found in reviewing current literature related to motivation in high school students. In order to acquire the most accurate responses regarding students' motivational sources, the questionnaire uses a five-point Likert scale to facilitate the quantitative research method and allow the researcher to analyze the data mathematically. Based on reviewed literature, each motivational source statement relates directly to motivation in the classroom. The items also spanned an array of sources related to each student.

Because the basis of this study is students' perception of the sources of motivation, respondents were instructed to answer all questions based on their individual perceptions.

### **Data Collection**

The survey was made available to students in the Business Department at Bearden High School during the week of May 14 - 18, 2001. The researcher administered the survey directly to each business class taught during this period. Each student was given time to complete the survey according to his or her individual perceptions. The researcher collected the results directly from the students to ensure confidentiality. Students who had previously completed the survey in another class were given oral and written instructions to return the blank survey to the researcher.

### **Data Analysis**

Data Analysis began after the collection of data from the respondents. Each survey was coded alphanumerically according to student *grade level*. Freshmen respondents were coded A1 through A95, sophomores were B1 through B29, juniors were C1 through C67, and seniors were D1 through D32. The data were entered into a Microsoft Excel spreadsheet. Although 227 surveys were collected, data from 223 surveys were entered as data, with the other four being omitted. Three of the four surveys excluded demographic information, and one survey contained two circled answers for current course (question 2). The demographic variables with respect to *gender* and *grade level* were assigned values (male=1, female=2; freshman=1, sophomore=2, junior=3, senior=4) and entered as such. With Keyboarding being the

only designated required course, all other course notations by respondents were treated as elective courses. Keyboarding was assigned a value of 1, and all other courses were assigned a value of 2.

After the data were entered into the spreadsheet, means, medians, modes, standard deviations, frequencies, and percentages were calculated using formulas in the Excel program. Data from the Excel spreadsheet were converted into an SPSS file for data analysis.

The data compiled from the survey were analyzed using descriptive statistics and selected parametric tests; namely independent t-tests and analysis of variance to ascertain respondents' demographics and individual perceptions of the motivational sources. In consultation with a statistician from the University of Tennessee Statistical Consulting Center, the researcher opted to use these parametric tests for significant difference. In addition, the descriptive statistics used aided the researcher in developing a more clear understanding of the study respondents.

The survey items were grouped into three categories. The first category contained items related to teacher-influenced motivational sources (5 items), the second related to intrinsic motivational sources (8 items), and the third related to extrinsic motivational sources (7 items). Although some motivational sources could depict more than one category, the researcher categorized each motivational source based upon how the source was reference in related literature. The grouping of sources into categories enhanced data interpretation.

Detailed data analyses appear in Chapter IV.

## CHAPTER IV

### Data Analysis and Findings

This chapter includes the description of data analysis and resultant findings for the 223 respondents who successfully completed the survey instrument

To fulfill the purposes of this study, data were examined and analyzed (a) to reveal pertinent respondents' demographics, (b) to answer the five research questions, and (c) to test the three hypotheses. As demonstrated by the stated hypotheses, this study proposed that **no differences would exist** in motivational sources among respondents **based on gender, course nature, and grade level.**

To answer the research questions and test the hypotheses, respondents were asked to answer four questions on the survey instrument concerning demographic information. Respondents were also asked to report the impact that each of the 20 motivational source statements had on their motivation to learn in the classroom. Figure 2 displays the Variable Matrix on which this study was conducted in terms of profile information and motivational sources. Numbers shown in the dependent variables column represent instrument item numbers for each independent variable.

The sections in the Data Analysis and Findings chapter are (a) Respondent Demographics, (b) Motivational Sources, (c) Differences Based on *Gender*, (d) Differences Based on *Course Nature*, and (e) Differences Based on *Grade Level*.

	Variables	
	Independent	Dependent
Profile Information		Motivational Sources Survey Items
	Gender	1, 5-24
	Course Nature	2, 5-24
	Grade Level	4, 5-24

**Figure 2. Variable Matrix**

### **Respondent Demographics**

Respondents were asked to provide information including *gender*, current *course*, current class period, and *grade level*. These questions provided a description of students enrolled in the Business Department at Bearden High School during the spring semester of 2001. Table 1 shows the respondent profile for this research, which answers **Research Question One:**

**Who are the students in the Business Department at Bearden High School during the Spring Semester of 2001?**

The respondent profile shows the respondents' *gender*, *course nature*, and *grade level*. Both males and females comprised approximately one half of the respondent group, 56.1% and 43.9%, respectively. Approximately one fourth of the respondents were enrolled in a required course (24.2%) and three fourths were enrolled in elective



**Table 1. Respondent Profile (n = 223)**

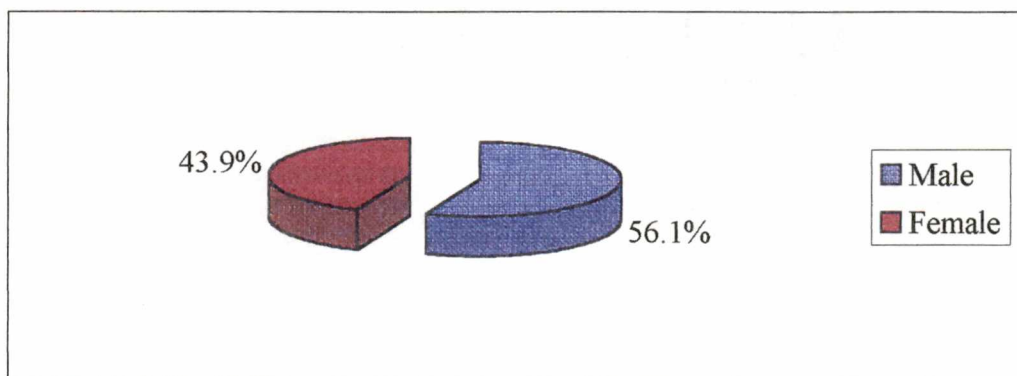
<b>Demographic Variable</b>	<b>Respondents</b>	
	<b>Number</b>	<b>Percentage</b>
<b>Gender</b>		
Male	125	56.1%
Female	98	43.9%
<b>Course Nature Enrollment</b>		
Required	54	24.2%
Elective	169	75.8%
<b>Grade Level</b>		
Freshman	95	42.6%
Sophomore	29	13.0%
Junior	67	30.0%
Senior	32	14.3%

courses (75.8%). Freshman and juniors dominated the respondent group with 42.6% and 30.0%, respectively.

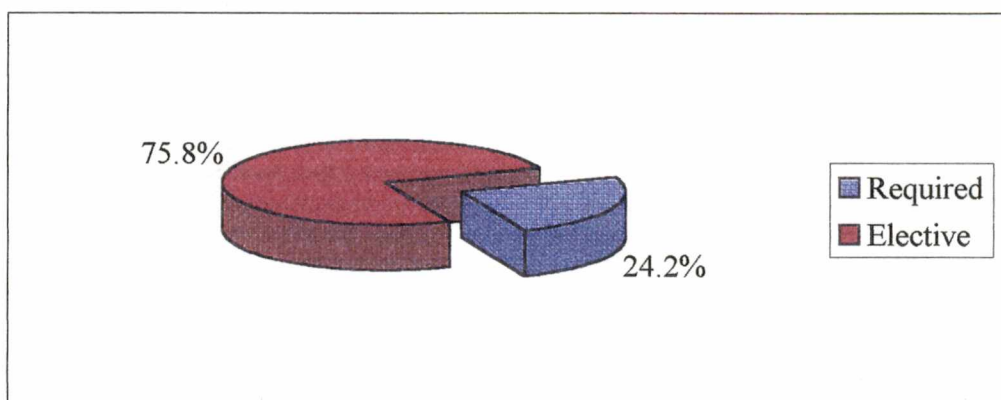
Survey question one required respondents to indicate their *gender*. For the purpose of this study, *gender* was assigned a value (male = 1; female = 2). One hundred twenty-five males (56.1%) and 98 females (43.9%) completed the survey. Figure 3 provides a graphic representation of the *gender* distribution among the respondents.

Survey question two asked respondents to indicate their current course. The researcher assigned values to the courses for data analysis. In spring semester 2001, Keyboarding was the only required business course at Bearden High School, and consequently all other businesses courses were electives. Keyboarding was assigned a value of 1, and the elective courses were assigned a value of 2. According to the analysis, 54 respondents (24.2%) were enrolled in a required course (Keyboarding) while 169 respondents (75.8%) were enrolled in an elective course. The *course nature* distribution is depicted graphically in Figure 4.

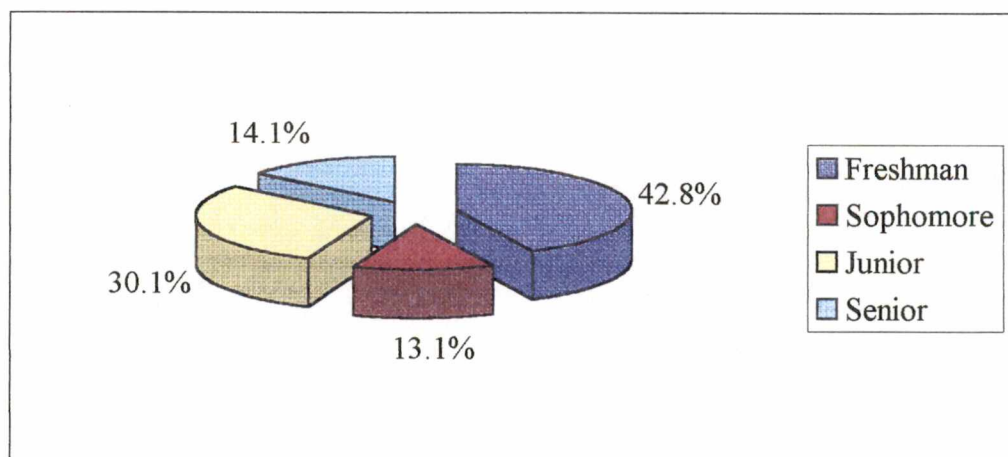
Survey question four asked respondents to indicate their *grade level* as a way to further describe the sample of this study and to create a means of comparison. Respondents indicated this on the survey by circling *grade level*. The researcher assigned values to the *grade levels* as follows: freshman = 1; sophomore = 2; junior = 3; senior = 4. The majority of respondents, 42.6% (95 respondents) were freshman. Sophomores represent 13.0% of the sample (29 respondents), juniors 30.0% (67 respondents), and seniors 14.3% (32 respondents). The distribution of respondent *grade level* is depicted graphically in Figure 5.



**Figure 3. Gender Distribution**



**Figure 4. Course Nature Distribution**



**Figure 5. Grade Level Distribution**

Survey question three asked respondents to indicate their class period. The researcher assigned values to the courses for data analysis. Although this survey question was not included in the research questions or hypotheses, the class period was used as a way to further describe the respondents. During the spring semester of 2001, class period was distributed equally as possible at Bearden High School to accommodate school-wide scheduling needs. Each period represented approximately one fourth of the respondent data. Fifty-seven respondents (25.6%) were in first period, 58 respondents (26.0%) were in second period, 46 respondents (20.6%) were in third period, and 62 respondents (27.8%) were in fourth period.

### **Motivational Sources**

The second section of Data Analysis answers **Research Question Two,**

**What are the motivational sources** of students in the Business

Department at Bearden High School during the Spring Semester of 2001?

According to the respondents, the three motivational sources with the highest mean ratings were (a) *earning a passing grade*, (b) *earning a high school diploma*, and (c) *keeping a high grade point average*. Based on mean rating responses, the top ten motivational sources are listed in Table 2.

**Table 2. Top-Rated Ten Motivational Sources  
As Perceived by Bearden High School  
Business Students**

<b>Mean-Based Rating</b>	<b>Motivational Source</b>
1 <sup>st</sup>	Earning a Passing Grade
2 <sup>nd</sup>	Earning a High School Diploma
3 <sup>rd</sup>	Keeping Grade Point Average High
4 <sup>th</sup>	Considering Future Achievements
5 <sup>th</sup>	Desire to Succeed
6 <sup>th</sup>	Teacher's Style
7 <sup>th</sup>	Considering Requirements for Future Occupations
8 <sup>th</sup>	Considering Requirements for College
9 <sup>th</sup>	Teacher's Attitude
10 <sup>th</sup>	Teacher's Recognition of my Abilities

As stated previously, the 20 motivational sources were grouped into three categories for comparison, namely, teacher-influenced, intrinsic, and extrinsic.

**Teacher-Influenced Motivational Sources.** This group of statements addressed (a) *teacher's attitude*, (b) *teacher's amount of daily communication*, (c) *teacher's recognition of my abilities*, (d) *teacher's style*, and (e) *rewards from my teacher*. On a five-point scale, with 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Undecided*, 4 = *Agree*, and 5 = *Strongly Agree*, respondents gave the five teacher-influenced motivational sources a composite mean of 3.74. The highest rated teacher-influenced motivational source was *teacher's style* (4.072 mean). The five teacher-influenced motivational sources are listed in Table 3 along with each mean and rating percentage. The most frequent response for each source was a *four* denoting *agree*. For some motivational source statements the cumulative percentage equaled less than 100, because some of the 223 respondents chose not to provide feedback for every statement.

**Table 3. Teacher-Influenced Motivational Sources**

Motivational Source	Mean	Rating*					Cumulative Percentage
		1	2	3	4	5	
Teacher's Attitude	3.865	4.9%	5.4%	15.2%	47.1%	27.4%	100.0%
Teacher's Amount of Daily Communication	3.673	4.5%	11.7%	18.4%	43.0%	22.4%	100.0%
Teacher's Recognition of my Abilities	3.859	3.6%	6.7%	18.8%	40.4%	29.1%	98.6%
Teacher's Style	4.072	3.2%	5.4%	14.8%	34.1%	42.2%	99.6%
Teacher's Rewards	3.243	9.0%	22.0%	22.0%	29.1%	17.5%	99.6%

\*1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

**Intrinsic Motivational Sources.** This group of survey instrument statements consisted of (a) *earning a passing grade*, (b) *keeping grade point average high*, (c) *self-motivated*, (d) *opportunity to learn*, (e) *usefulness of the content*, (f) *personal passion for business/computers*, (g) *desire to succeed*, and (h) *earning my high school diploma*.

Respondents for these eight intrinsic motivational sources provided a composite mean rating of 3.83. The highest rated intrinsic motivational source was *earning a passing grade* (4.315 mean). The eight intrinsic motivational sources appear in Table 4 along with each mean and rating percentage. For some motivational source statements the cumulative percentage equaled less than 100, because some of the 223 respondents chose not to provide feedback for every statement.

**Table 4. Intrinsic Motivational Sources**

Motivational Source	Mean	Rating*					Cumulative Percentage
		1	2	3	4	5	
Earning a Passing Grade	4.315	2.7%	2.2%	10.3%	30.0%	54.3%	99.5%
Keeping Grade Point Average High	4.208	2.7%	3.6%	16.1%	24.7%	52.0%	99.1%
Self-motivated	3.797	3.2%	6.3%	23.8%	40.8%	25.6%	99.6%
Opportunity to Learn	3.314	2.7%	17.5%	37.2%	30.9%	11.7%	100.0%
Usefulness of Content	3.566	5.0%	9.0%	28.7%	38.1%	18.4%	99.1%
Personal Passion for Business / Computers	3.059	9.9%	25.1%	26.0%	26.5%	12.1%	99.6%
Desire to Succeed	4.077	2.7%	4.5%	11.2%	45.3%	35.6%	99.3%
Earning my High School Diploma	4.290	2.2%	4.5%	9.0%	30.0%	53.4%	99.1%

\* 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree

**Extrinsic Motivational Sources.** This group of statements included (a) *parents/guardians*, (b) *considering future achievements*, (c) *requirements for college*, (d) *requirements for future occupations*, (e) *National/Statewide tests*, (f) *rewards from my parents* and (g) *extra-curricular activities*. Respondents gave the seven extrinsic motivational sources a composite mean of 3.70. The highest rated extrinsic motivational source was *considering future achievements* (4.184 mean). The seven extrinsic motivational sources appear in Table 5 along with each mean and rating percentage. For some motivational source statements the cumulative percentage equaled less than 100 because some of the 223 respondents chose not to provide feedback for every statement.

**Table 5. Extrinsic Motivational Sources**

Motivational Source	Mean	Rating*					Cumulative Percentage
		1	2	3	4	5	
Parents/Guardians	3.753	6.7%	8.5%	19.3%	33.6%	31.8%	99.9%
Considering Future Achievements	4.184	2.2%	4.0%	13.5%	33.6%	46.6%	99.9%
Requirements for College	3.995	2.7%	4.9%	15.2%	43.9%	32.7%	99.4%
Requirements for Future Occupations	4.049	1.8%	5.4%	16.1%	39.5%	37.2%	100.0%
National/Statewide Tests	2.982	14.8%	17.0%	33.6%	24.2%	10.3%	99.9%
Rewards from my Parents	3.536	9.5%	15.7%	13.9%	33.2%	27.4%	99.6%
Extra-Curricular Activities	3.432	9.5%	14.8%	23.3%	27.4%	24.7%	99.6%

\*1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree



Data Analysis provided additional information that the researcher deemed important in the findings of this study. Respondents A19, B19, and A74 appeared as outliers on each test of significant difference with respect to teacher-influenced, intrinsic, and extrinsic motivational sources. These three outlier respondents—two freshmen and one sophomore--consistently rated the 20 motivational source statements substantially lower than did the other respondents. Their responses caused the researcher pause because they appear to be unaffected by any motivational source included in this study. The researcher was caused to wonder whether the three outliers were preoccupied with other challenges or concerns.

#### **Differences Based on Gender**

This section of the Data Analysis depicts respondent data supportive of answering **Research Question Three,**

**What are the differences** in the motivational sources of students in the Business Department at Bearden High School **based on gender?**

and testing **Null Hypothesis One,**

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on gender.**

As stated previously, the 20 motivational sources were grouped into three categories for comparison, namely, teacher-influenced, intrinsic, and extrinsic.

**Teacher-Influenced Motivational Sources.** Male respondents rated the teacher-influenced motivational sources with a composite mean of 3.6764, while female respondents provided a rating of 3.8250. The resultant t-value tested at the .05 significance level for teacher-influenced motivational sources was -1.381. As evidenced in Table 6, this t-value did not occur within the 95% confidence interval.

**Intrinsic Motivational Sources.** Male respondents rated the intrinsic motivational sources with a composite mean of 3.7923, while female respondents provided a rating of 3.8728. The resultant t-value tested at the .05 significance level for intrinsic motivational sources was -.995. As evidenced in Table 7, this t-value did not fall in the 95% confidence interval of the difference.

**Extrinsic Motivational Sources.** Male respondents rated the extrinsic motivational sources with a composite mean of 3.6459, while female respondents provided a rating of 3.7782. The resultant t-value tested at the .05 significance level for extrinsic motivational sources was -1.481. As evidenced in Table 6, this t-value did not fall in the 95% confidence interval of the difference.

#### **Differences Based on Course Nature**

This section of Data Analysis depicts respondent data supportive of answering **Research Question Four,**

**What are the differences** in the motivational sources of  
students in the Business Department at Bearden High School  
**based on *course nature*?**

and testing **Null Hypothesis Two,**

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on course nature?**

As stated previously, the 20 motivational sources were grouped into three categories for comparison, namely, teacher-influenced, intrinsic, and extrinsic.

**Teacher-Influenced Motivational Sources.** Respondents enrolled in a *required course* rated the teacher-influenced motivational sources with a composite mean of 3.5620, while respondents enrolled in an *elective course* provided a rating of 3.7991. The resultant t-value tested at the .05 significance level for teacher-influenced motivational sources was -1.909. As evidenced in Table 9, this t-value did not occur within the 95% confidence interval.

**Intrinsic Motivational Sources.** Respondents enrolled in a *required course* rated the intrinsic motivational sources with a composite mean of 3.7950, while respondents enrolled in an *elective course* provided a rating of 3.8381. The resultant t-value tested at the .05 significance level for intrinsic motivational sources was -.460. As evidenced in Table 10, this t-value did not fall in the 95% confidence interval of the difference.

**Extrinsic Motivational Sources.** Respondents enrolled in a *required course* rated the extrinsic motivational sources with a composite mean of 3.7968, while respondents enrolled in an *elective course* provided a rating of 3.6744. The resultant t-value tested at the .05 significance level for extrinsic motivational sources was 1.181. As evidenced in Table 11, this t-value did not fall in the 95% confidence interval of the difference.

Table 6. Teacher-Influenced Motivational Source t-Test Results Based on Gender

Gender	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Male	125	3.6764	.8319	.0744	-1.381	221	.169	-.148	.1075	-.3606	.0634
Female	98	3.8250	.7509	.0758							

Table 7. Intrinsic Motivational Source t-Test Results Based on Gender

Gender	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Male	125	3.7923	.5847	.0523	-.995	221	.321	-.0805	.0809	-.2399	.0789
Female	98	3.8728	.6181	.0624							

Table 8. Extrinsic Motivational Source t-Test Results Based on Gender

Gender	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Male	125	3.6459	.6850	.0612	-1.481	221	.140	-.1322	.0893	-.3082	.0437
Female	98	3.7782	.6313	.0637							

Table 9. Teacher-Influenced Motivational Source t-Test Results Based on Course Nature

Course Nature	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Required	54	3.5620	.8354	.1136	-1.909	221	.058	-.2371	.1241	-.4817	.0076
Elective	169	3.7991	.7809	.0600							

Table 10. Intrinsic Motivational Source t-Test Results Based on Course Nature

Course Nature	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Required	54	3.7950	.6209	.0845	-.460	221	.646	-.0431	.0938	-.2281	.1418
Elective	169	3.8381	.5941	.0457							

Table 11. Extrinsic Motivational Source t-Test Results Based on Course Nature

Course Nature	N	Mean	Standard Deviation	Standard Error	t	df	Significance (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
										Lower	Upper
Required	54	3.7968	.6225	.0847	1.181	221	.239	.1224	.1036	-.0818	.3267
Elective	169	3.6744	.6754	.0519							

### **Differences Based on Grade Level**

This section of Data Analysis depicts respondent data supportive of answering **Research Question Five**,

**What are the differences** in the motivational sources of students in the Business Department at Bearden High School **based on grade level?**

and testing **Null Hypothesis Three**,

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on grade level?**

As stated previously, the 20 motivational sources were grouped into three categories for comparison, namely, teacher-influenced, intrinsic, and extrinsic.

**Teacher-Influenced Motivational Sources.** Table 12 shows that freshman respondents rated the teacher-influenced motivational sources with a composite mean of 3.6858, sophomore respondents 3.5690, junior respondents 3.8291, and senior respondents 3.8813. As illustrated in Table 13, an analysis of variance (ANOVA) between the four *grade level* means resulted in an F ratio of 1.203. Therefore, no significant difference was found between the four *grade level* means with respect to teacher-influenced motivational sources.

**Intrinsic Motivational Sources.** Table 14 shows that freshman respondents rated the intrinsic motivational sources with a composite mean of 3.8175, sophomore

**Table 12. Teacher-Influenced Motivational Sources - Descriptive Statistics Based on *Grade Level***

<b>Grade</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>n</b>
Freshman	3.6858	.7580	95
Sophomore	3.5690	.8531	29
Junior	3.8291	.7756	67
Senior	3.8813	.9042	32

**Table 13. Teacher-Influenced Motivational Sources - ANOVA Results Based on *Grade Level***

<b>Source</b>	<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>
Corrected Model	2.297*	3	.766	1.203
Intercept	2456.060	1	2456.060	3857.136
GRADE	2.297	3	.766	1.203
Error	139.450	219	.637	
Total	3263.825	223		
Corrected Total	141.747	222		

\*R Squared = .016 (Adjusted R Squared = .003)

**Table 14. Intrinsic Motivational Sources -  
Descriptive Statistics Based on *Grade Level***

<b>Grade</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>n</b>
Freshman	3.8175	.6221	95
Sophomore	3.7986	.5931	29
Junior	3.9030	.5241	67
Senior	3.7266	.6886	32

**Table 15. Intrinsic Motivational Sources -  
ANOVA Results Based on *Grade Level***

<b>Source</b>	<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>
Corrected Model	.741*	3	.247	.685
Intercept	2549.016	1	2549.016	7060.232
GRADE	.741	3	.247	.685
Error	79.067	219	.361	
Total	3347.003	223		
Corrected Total	79.809	222		

\*R Squared = .009 (Adjusted R Squared = -.004)



respondents 3.7986, junior respondents 3.9030, and senior respondents 3.7266. As illustrated in Table 15, an analysis of variance (ANOVA) between the four *grade level* means resulted in an F ratio of .685. Therefore, no significant difference was found between the four *grade level* means with respect to intrinsic motivational sources.

**Extrinsic Motivational Sources.** Table 16 shows that freshman respondents rated the extrinsic motivational sources with a composite mean of 3.8123, sophomore respondents 3.7833, junior respondents 3.6372, and senior respondents 3.4509. As illustrated in Table 17, an analysis of variance (ANOVA) between the four *grade level* means resulted in an F ratio of 2.827. Therefore, a significant difference was found between the four *grade level* means with respect to extrinsic motivational sources.

A Post Hoc was required because the F ratio found a significant difference between the four *grade level* means with respect to extrinsic motivational sources. Table 18 shows the Tukey Post Hoc Test results. According to this table, grade 1 (freshman) and grade 4 (senior) mean difference was significant at the .05 level.

**Table 16. Extrinsic Motivational Sources -  
Descriptive Statistics Based on *Grade Level***

<b>Grade</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>n</b>
Freshman	3.8123	.6104	95
Sophomore	3.7833	.7108	29
Junior	3.6372	.5964	67
Senior	3.4509	.8330	32

**Table 17. Extrinsic Motivational Sources - ANOVA Results Based on *Grade Level***

Source	Type III Sum of Squares	df	Mean Square	F
Corrected Model	3.646*	3	1.215	2.827
Intercept	2364.542	1	2364.542	5499.498
GRADE	3.646	3	1.215	2.827
Error	94.160	219	.430	
Total	3157.376	223		
Corrected Total	97.807	222		

\*R Squared = .037 (Adjusted R Squared = .024)

**Table 18. Extrinsic Motivational Sources - Tukey Post Hoc Test Results Based on *Grade Level***

(I) GRADE	(J) GRADE	Mean Difference (I-J)	Significance
1	2	.0291	.997
	3	.1752	.340
	4	.3614*	.038
2	1	-.0291	.997
	3	.1461	.748
	4	.3324	.200
3	1	-.1752	.340
	2	-.1461	.748
	4	.1863	.550
4	1	-.3614*	.038
	2	-.3324	.200
	3	-.1863	.550

\*The mean difference is significant at the .05 level

## CHAPTER V

### **Summary, Conclusions, Recommendations, and Implications**

After examination of the results found in Chapter IV of this study, a summary of the findings is presented. Using the findings as a basis for further discussion, the researcher arrived at a set of conclusions, which, when paired with the previously reviewed related literature, allowed the formulation of relevant recommendations. These three components aided the researcher in the development of the implications for motivational sources in an educational setting.

This chapter is composed of a Summary, Conclusions, Recommendations, and Implications.

#### **Summary**

This section contains a review of the researcher's findings. The summary is arranged on the bases of responses obtained for answering the five research questions about respondent demographics and motivational sources and testing the three null hypotheses pertaining to differences based on *gender*, *course nature*, and *grade level*. The respondents' mean ratings related to the five-point Likert scale discussed throughout this research. A score of one indicated a respondent Strongly Disagreeing with the source as a motivation to learn, and a score of five indicated a respondent Strongly Agreeing with the source as a motivation to learn.

**Respondent Demographics.** Demographic information for the students in the Business Department at Bearden High School during the spring semester of 2001 were as follows:

- males and females comprised approximately one half of the respondent group, 56.1% and 43.9%, respectively;
- approximately one fourth of the respondents were enrolled in a required course (24.2%) and three fourths were enrolled in an elective course (75.8%);
- freshman and juniors dominated the respondent group with 42.6% and 30.0%, respectively; and
- each class period represented approximately one fourth of the respondent group-- First Period (25.6%), Second Period (26.0%), Third Period (20.6%), and Fourth Period (27.8%).

**Motivational Sources.** The motivational sources of students in the Business Department at Bearden High School during the spring semester of 2001 were as follows:

- the three motivational sources with the highest mean ratings were (a) *earning a passing grade*, (b) *earning a high school diploma*, and (c) *keeping grade point average high*;
- of the three motivational source categories, intrinsic motivational sources received the highest composite mean rating (3.83), teacher-influenced motivational sources were next (3.74), and extrinsic motivational sources were third (3.70);
- the teacher-influenced motivational source with the highest mean rating was *teacher's style* (4.072);

- the intrinsic motivational source with the highest mean rating was *earning a passing grade* (4.315); and
- the extrinsic motivational source with the highest mean rating was *considering future achievements* (4.184).

**Differences Based on Gender.** The differences in the motivational sources of students in the Business Department of Bearden High School based on *gender* were as follows:

- male respondents rated the teacher-influenced motivational sources with a composite mean of 3.6764, while female respondents provided a rating of 3.8250;
- male respondents rated the intrinsic motivational sources with a composite mean of 3.7923, while female respondents provided a rating of 3.8728; and
- male respondents rated the extrinsic motivational sources with a composite mean of 3.6459, while female respondents provided a rating of 3.7782.

**Differences Based on Course Nature.** The differences in the motivational sources of students in the Business Department of Bearden High School based on *course nature* were as follows:

- respondents enrolled in a required course rated the teacher-influenced motivational sources with a composite mean of 3.5620, while respondents enrolled in an elective course provided a rating of 3.7991;
- respondents enrolled in a required course rated the intrinsic motivational sources with a composite mean of 3.7950, while respondents enrolled in an elective course provided a rating of 3.8381; and

- respondents enrolled in a required course rated the extrinsic motivational sources with a composite mean of 3.7968, while respondents enrolled in an elective course provided a rating of 3.6744.

**Differences Based on Grade Level.** The differences in the motivational sources of students in the Business Department of Bearden High School based on *grade level* were as follows:

- freshman respondents rated the teacher-influenced motivational sources with a composite mean of 3.6858, sophomore respondents with a composite mean of 3.5690, junior respondents with a composite mean of 3.8291, and senior respondents with a composite mean of 3.8813;

- freshman respondents rated the intrinsic motivational sources with a composite mean of 3.8175, sophomore respondents with a composite mean of 3.7986, junior respondents with a composite mean of 3.9030, and senior respondents with a composite mean of 3.7266; and

- freshman respondents rated the extrinsic motivational sources with a composite mean of 3.8123, sophomore respondents with a composite mean of 3.7833, junior respondents with a composite mean of 3.6372, and senior respondents with a composite mean of 3.4509.

**Hypothesis 1.** The following findings supported the acceptance of Hypothesis 1,

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on *gender*.**

- The difference for teacher-influenced motivational sources based on *gender* was insignificant, with a t-value of -1.381.
- The difference for intrinsic motivational sources based on *gender* was insignificant, with a t-value of -.995.
- The difference for extrinsic motivational sources based on *gender* was insignificant, with a t-value of -1.481.
- Subsequently, Hypothesis 1 was accepted.

**Hypothesis 2.** The following findings supported the acceptance of Hypothesis 2,

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on *course nature*.**

- The difference for teacher-influenced motivational sources based on *course nature* was insignificant, with a t-value of -1.909.
- The difference for intrinsic motivational sources based on *course nature* was insignificant, with a t-value of -.460.
- The difference for extrinsic motivational sources based on *course nature* was insignificant, with a t-value of 1.181.
- Subsequently, Hypothesis 2 was accepted.

**Hypothesis 3.** The following findings supported the rejection of Hypothesis 3,

**There are no differences** in the motivational sources of students in the Business Department at Bearden High School **based on *grade level*.**

- The difference for teacher-influenced motivational sources based on *grade level* was insignificant, with an F ratio of 1.203. Therefore, Hypothesis 3 was accepted for teacher-influenced motivational sources based on *grade level*.
- The difference for intrinsic motivational sources based on *grade level* was insignificant, with an F ratio of .685. Therefore, Hypothesis 3 was accepted for intrinsic motivational sources based on *grade level*.
- The difference for extrinsic motivational sources based on *grade level* was significant, with an F ratio of 2.827. According to the Tukey Post Hoc Test results, freshman and senior mean difference was significant at the .05 level. Therefore, Hypothesis 3 was rejected for extrinsic motivational sources based on *grade level*.

### Conclusions

Based on the findings of this study, the following conclusions were reached:

1. The three top-rated motivational sources relate to grades and graduation; namely, (a) *earning a passing grade*, (b) *earning a high school diploma*, and (c) *keeping grade point average high*.
2. While male respondents consistently reported slightly lower mean ratings of teacher-influenced, intrinsic, and extrinsic motivational sources than did female respondents, Bearden High School business students did not differ significantly in their motivational sources based on *gender*.
3. While respondents in required courses consistently reported slightly lower mean ratings of teacher-influenced and intrinsic motivational sources than did respondents in elective courses, AND respondents in required courses consistently reported slightly



higher mean ratings of extrinsic motivational sources than did respondents in elective courses, Bearden High School business students did not differ significantly in their motivational sources based on *course nature*.

4. While senior respondents consistently reported slightly lower mean ratings of intrinsic and extrinsic motivational sources than did other respondents, AND senior respondents consistently reported slightly higher mean ratings of teacher-influenced motivational sources than did other respondents, Bearden High School business students did not differ significantly in their teacher-influenced and intrinsic motivational sources based on grade level. However, seniors and freshmen differed significantly in extrinsic motivational sources. Freshmen responded more favorably to extrinsic motivational sources, and seniors responded less favorably to extrinsic motivational sources.

5. Respondents have a variety of motivational sources that affect their achievement in the classroom. According to Table 2 (p.34), the ten top-rated motivational sources, as perceived by Bearden High School Business Students, consisted of three teacher-influenced sources, four intrinsic sources, and three extrinsic sources. The variety of these motivational sources produces an optimal situation according to the research. Stipek (1996) concluded that the elimination of extrinsic incentives is neither desirable nor realistic in today's classrooms. Logan (1976) maintained that in order to maximize motivation, it is useful to combine intrinsic motivators with extrinsic motivators. Based on these researchers, it can be reasoned that respondents in Bearden High School Business Department during the spring semester of 2001, had the foundation for an optimal opportunity to maximize motivation.

6. Three respondents, A19, A74, and B19, did not appear to be motivated with respect to teacher-influenced, intrinsic, and extrinsic motivational sources. Wlodowski (1978) cautioned that students who are not willing to involve themselves in class activities or assignments are not unmotivated so much as they are following some energy or stimulus that directs their involvement elsewhere.

### **Recommendations**

The findings of this research are limited due to the relatively narrow scope of the investigation. However, there are clear recommendations that have surfaced as a result of careful examination of the study. This researcher's recommendations for fellow researchers and the teachers include:

- conducting further research involving the entire population of students at Bearden High School or other schools in the Knox County School System;
- conducting additional research using of this survey instrument to accommodate reliability testing;
- revising the survey instrument to (a) include emerging motivational sources and (b) enable respondents to supply additional motivation sources that affect their learning;
- employing different data collection techniques for ascertaining and defining student perceptions of motivational sources;
- recognizing that male students may respond slightly less favorably than do female students with respect to teacher-influenced, intrinsic, and extrinsic motivational sources;

- recognizing that students enrolled in required courses may respond slightly less favorably than do students enrolled in elective courses with respect to teacher-influenced and intrinsic motivational sources;
- recognizing that students enrolled in required courses may respond slightly more favorably than do students enrolled in elective courses with respect to extrinsic motivational sources;
- recognizing that seniors may respond slightly less favorably than do other students with respect to intrinsic and extrinsic motivational sources;
- recognizing that seniors may respond slightly more favorably than do other students with respect to teacher-influenced motivational sources;
- recognizing that seniors and freshman differ significantly with respect to extrinsic motivational sources; and
- conducting additional research to identify students who are outliers so that those students can receive appropriate interventions which enhance their motivation to learning.

### **Implications**

The major implications of this are as follows:

- business teachers need to be knowledgeable of teacher-influenced, intrinsic, and extrinsic motivational sources, particularly, how (a) *earning a passing grade*, (b) *earning a high school diploma*, and (c) *keeping grade point average high* relate to student performance in each business course regardless of student *gender* or *grade level* or *course nature*--required or elective;

- business students at Bearden High School respond favorably to a combination of extrinsic and intrinsic motivational sources which the teacher can and should strive to accommodate in order to enhance student learning;
- business teachers who teach a combination of *grade levels* in the classroom should accommodate the diverse motivational needs of those students; and
- business teachers should recognize and seek help for those students who seem to have neither the motivation nor the desire to learn.

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# APPENDICES

**APPENDIX A**

**SURVEY INSTRUMENT**

## Survey: Motivational Sources of Students

The following is a study on the motivational sources of high school students. Please answer each question to the best of your ability. **If you have already filled this survey out, please return it to your instructor now.** Please remember this survey is anonymous and will only be used for purposes of this research. When you have completed the survey, please return it to your instructor.

**The first section will ask various demographic variables used for the purpose of making comparisons. Circle the appropriate answer.**

1. What is your gender?

**Male**

**Female**

2. What class are you currently in?

**Web Design / E-Commerce**

**Keyboarding**

**Desktop Publishing**

**Internet Navigation / Computer Productivity**

**Accounting**

**Principles of Business**

**Keyboarding Applications**

3. What period are you currently in?

**First**

**Second**

**Third**

**Fourth**

4. What is your grade level?

**Freshman**

**Sophomore**

**Junior**

**Senior**

The second section of this survey will address various sources that have been shown to motivate high school students. For each source listed below, please indicate the extent to which each source motivates you to learn in the classroom.

1 – Strongly Disagree    2 – Disagree    3 – Undecided    4 – Agree    5 – Strongly Agree

The <i>teacher's attitude</i> concerning the topic of discussion is a source of my motivation to learn in the classroom.	1	2	3	4	5
The <i>teacher's amount of daily communication</i> with me is a source of my motivation to learn in the classroom.	1	2	3	4	5
The <i>teacher's recognition of my abilities</i> in the classroom is a source of my motivation to learn in the classroom.	1	2	3	4	5
The <i>teacher's style of teaching</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
<i>Earning a passing grade</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
Keeping my <i>Grade Point Average</i> high is a source of my motivation to learn in the classroom.	1	2	3	4	5
My <i>parents/guardians</i> are a source of my motivation to learn in the classroom.	1	2	3	4	5
<i>Considering future achievements</i> , such as earning a scholarship, is a source of my motivation to learn in the classroom.	1	2	3	4	5
I am <i>self-motivated</i> to learn in the classroom.	1	2	3	4	5
The <i>opportunity to learn</i> is a source of my motivation in the classroom.	1	2	3	4	5
Considering <i>requirements for college</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
Considering <i>requirements for future occupations</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
The <i>usefulness of the content</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
My <i>personal passion for business/computers</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
The <i>desire to succeed</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
Considering how well I will do on <i>National/Statewide tests</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
<i>Earning my high school diploma</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5
<i>Rewards from my teacher</i> are a source of my motivation to learn in the classroom.	1	2	3	4	5
<i>Rewards from my parents</i> are a source of my motivation to learn in the classroom.	1	2	3	4	5
Earning the grades to be able to participate in <i>extra-curricular activities (clubs, sports, etc.)</i> is a source of my motivation to learn in the classroom.	1	2	3	4	5

# APPENDIX B

## FORM A

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## MEMORANDUM

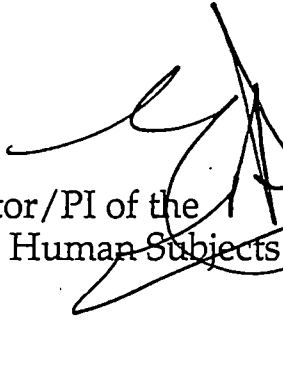
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**TO:** Jason Mayfield  
Randal H. Pierce  
Vickie J. Stout  
Debbie Mackey

**FROM:** Ernest W. Brewer, Professor, Director/PI of the  
Federal Programs, and Chair of the Human Subjects  
Review Committee

**DATE:** May 16, 2001

**RE:** Form A – Certification for Exemption from IRB  
Review for Research Involving Human Subjects



---

Your request pursuant to your recent Form A (Certification for Exemption from IRB Review for Research Involving Human Subjects) has been approved by UTK's Office of Research for a period of up to one year. Please note that if the research project has not been completed within the one-year period you must resubmit a new Human Subjects Form in order to continue the project.

As the HRD Department's Human Subjects Review Chair, please feel free to contact me if you have any questions.

xc: Ms. Brenda Lawson, UTK's Office of Research  
Dr. Billie Collier, Associate Dean and Interim Dept. Head  
Dr. Lane Morris, Associate Professor

## Form A

IRB # \_\_\_\_\_

## Certification for Exemption from IRB Review for Research Involving Human Subjects

**A. PRINCIPAL INVESTIGATOR(s) and/or CO-PI(s):**

Jason Mayfield  
 Dr. Vickie Stout  
 Dr. Debbie Mackey  
 Dr. Randal Pierce

**B. DEPARTMENT/UNIT:**

College of Human Ecology  
 Human Resource Development

**C. COMPLETE MAILING ADDRESS AND PHONE NUMBER OF PI(s) and CO-PI(s):**

Jason Mayfield	401 Gallaher View Rd. Apt. 353 Knoxville, TN 37919	865-531-7493
Dr. Vickie Stout	1215 West Cumberland Ave 310 Jesse Harris Building Knoxville, TN 37996	865-974-6289
Dr. Debbie Mackey	1215 West Cumberland Ave 310 Jesse Harris Building Knoxville, TN 37996	865-974-2574
Dr. Randal Pierce	1215 West Cumberland Ave 310 Jesse Harris Building Knoxville, TN 37996	865-974-2574

**D. TITLE OF PROJECT:**

Comparisons of the Motivational Sources of High School Business Students

**E. EXTERNAL FUNDING AGENCY AND ID NUMBER:**

N/A

**F. GRANT SUBMISSION DEADLINE:**

N/A

**G. STARTING DATE:**

9 May 01



## H. ESTIMATED COMPLETION DATE:

24 May 01

## I. RESEARCH PROJECT:

### 1. Objective(s) of Project:

The purpose of this study is to investigate and compare the motivational sources of students in the Business Department at Bearden High School. Comparisons will be made on the basis of gender, grade level, and whether the class is required or an elective.

### 2. Subjects:

The participants of this study will include the entire population of students in the Business Department at Bearden High School during the Spring Semester of 2001.

### 3. Methods or Procedures:

After the researcher acquires appropriate approval with the Knox County School System and Bearden High School Administration, the questionnaire will be administered to students enrolled in classes in the Business Department at Bearden High School. The questionnaire will require approximately fifteen minutes to complete. The questionnaire addresses student demographics and sources of motivation. The first section is used to obtain specific demographic information about the participants in order to make comparisons between the respondents. In the second section, participants are asked to respond to 20 statements, based upon a review of literature, relating to their sources of motivation.

In order to acquire the most accurate responses regarding students' motivational sources, the questionnaire uses a five-point Likert scale to facilitate the quantitative research method and allow the researcher to analyze the data mathematically. Peers and professionals have reviewed the questionnaire to ensure content validity. Because the basis of this study is students' perception of the sources of motivation, participants will be instructed to answer all questions based on their personal experience and perceptions.

Optimally, during the last three weeks of May, all affected instructors in the Business Department at Bearden High School will be asked to administer the questionnaire to their students. Each respondent will complete the questionnaire in the classroom and return the survey to the instructor. The researcher will then collect all of the surveys from each instructor. To prevent students from filling out the questionnaire, the directions will ask anyone that has previously completed this survey to immediately return it to the instructor.

Descriptive statistical methods will be employed to analyze the raw data. The researcher will use Microsoft Excel and SPSS software to facilitate analysis. The committee chairperson will also guide the researcher to the analysis to achieve optimum results. The researcher will seek counsel from the statistical service at the University of Tennessee, Knoxville. The statistician will aid the researcher in inputting the data from the survey and analyzing the data using descriptive and other statistics with the selected software. This will allow the comparison of the sources of motivation of students on the basis of the gender and grade level, and whether the course is required or an elective.

## 4. Category:

Paragraph 2 – research involving survey or interview procedures – entitles this research effort to exemption, per 45 CFR 46.101(b) from review by the Institutional Review Board. The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than these ordinarily encountered in daily life or during the performance of routine physical or psychological examination or tests.

J. **CERTIFICATION:** The research described herein is in compliance with 45 CFR 46.101(b) and presents subjects with no more than minimal risk as defined by applicable regulations.

Principle  
Investigator

JASON MAYFIELD J. Mayfield 5-7-01  
Name Signature Date

Student Advisor/  
Committee Chair

Vickie J. Stout Vickie J. Stout 5-8-01  
Name Signature Date

Student Advisor/  
Committee Member

Randal Pierce Randal Pierce 5/08/01  
Name Signature Date

Student Advisor/  
Committee Member

Debbie S. Mackey Debbie S. Mackey 5/8/01  
Name Signature Date

APPROVED:  
Dept. Head

Billie J. Collier Billie J. Collier 5/16/01  
Name Signature Date

APPROVAL:

Ernest W. Brewer 5/16/01  
Date  
Dept. Representative Ernest W. Brewer  
of IRB

## VITA

Jason D. Mayfield was born in Knoxville, Tennessee in 1977, the first child of David W. Mayfield and Vicki M. Mayfield. In 1995, Mr. Mayfield entered the University of Tennessee and earned a Bachelor of Science in Human Ecology Cum Laude in December 1999. In May 1999, Jason D. Mayfield and Jennifer K. Parrish were married in Knoxville, where they currently live. Mr. Mayfield was accepted into the University of Tennessee Graduate School in January 2000 in pursuit of a Business Education Teaching License and a Master of Science in Human Ecology, for which this thesis is the final requirement. During the 2000-2001 school year, Mr. Mayfield served as an Intern in the Business Department at Bearden High School. Mr. Mayfield was recently hired by the Knox County School System to teach in the Business Department at Farragut High School. Mr. Mayfield plans to remain in the Knoxville area working as an educator and basketball coach at the high school level.